

Global Data Explorer (GDEx)

Data Access

User Guide

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Land Processes DAAC
USGS Earth Resource Observation and Science (EROS) Center

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Global Data Explorer (GDEx)

The Global Data Explorer (GDEx) data access interface is the result of collaboration between the Land Processes (LP) Distributed Active Archive Center (DAAC) and George Mason University's Center for Spatial Information Science and Systems.

This tool is designed for the seamless selection of tiled data products including: ASTER Global DEM V2, NGA SRTM 1 & 3 arcsec, NASA SRTM 1 & 3 arcsec, GTOPO30, MODIS Land Cover (MCD12Q1) IGBP, and NASA Blue Marble; although users may also download the individual tiles associated with the area selected.

In the event that you publish data or results derived from LP DAAC data products, we request the inclusion of an acknowledgement and citation. Please review the [LP DAAC Citations](#) page for further guidance.

Users of GDEx are required to have a NASA EARTHDATA EOSDIS User Registration System (URS) Login account to download data. Users may register for a URS account by clicking [here](#), or by clicking on the GDEx interface's 'Log In' button to follow the links for 'Creating an account'.

GDEx Web Link: <http://gdex.cr.usgs.gov/gdex/>

The LP DAAC Global Data Explorer (GDEx) Web page as shown in **Error! Reference source not found.**Figure 1.

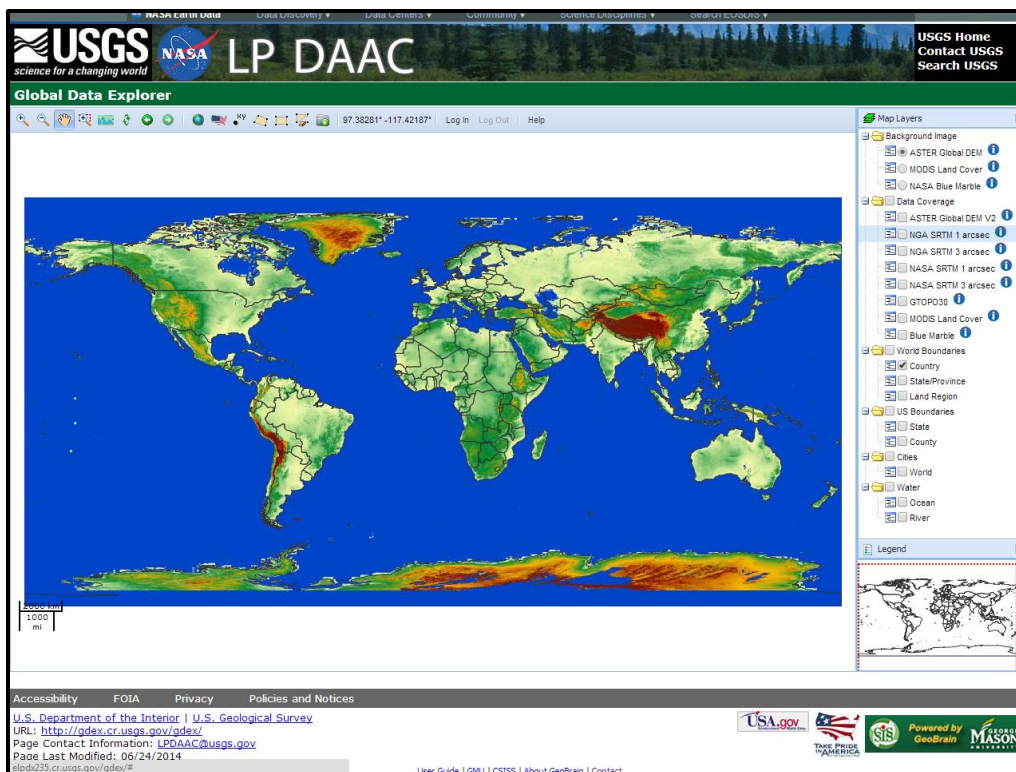


Figure 1 – Global Data Explorer Web Site

Data Products

Figure 2 provides a listing of data products available via the GDE interface. Each product listed is hyperlinked to its associated detailed product description.

ASTER Global Digital Elevation Model V002 (GDEM)	Global
NASA Shuttle Radar Topography Mission (SRTM) - V3.0 (SRTM Plus)	1 arcsecond (US) 3 arcsecond (Global)
NGA Shuttle Radar Topography Mission (SRTM) - "Finished"	1 arcsecond (US) 3 arcsecond (Global)
GTOPO30	Global
NASA SRTM Combined	1 arcsecond
MODIS Land Cover IGBP	Global
NASA Blue Marble	Global

Figure 2 – GDE Data Product

Getting Help

The 'Help' window can be opened by clicking on the 'Help' button in the menu bar. Alternately, for help, you may click on 'User Guide' located towards the bottom of the GDEX tool page.

Error! Reference source not found.3 displays the 'Help' screen that provides simplified data access steps in addition to links for access to System Status, Frequently Asked Questions (FAQ), the User Guide document, and to contact LP DAAC User Services.

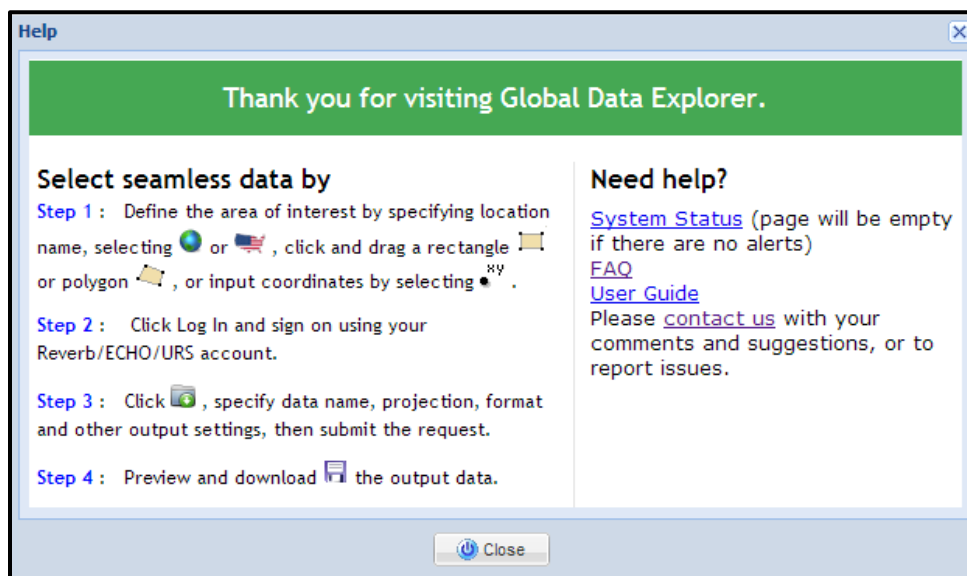


Figure 3 – GDEX Overview – Access data – System Status – FAQ – User Guide – Contact US

If you have problems running the GDEX interface or would like to submit feedback, you can either click on the 'contact us' located on the 'Help' window or send an e-mail to lpdaac@usgs.gov. When submitting a problem, please include in the subject line 'GDEX' and a detailed description of the problem along with the following configuration information:

- Operating System (e.g. Windows)
- Browser Version (e.g. Firefox 2.0.2)
- CPU Type and speed (e.g. Intel Core Duo 2GHz)
- Memory Size (e.g. 1GB)

Tool bar Definitions

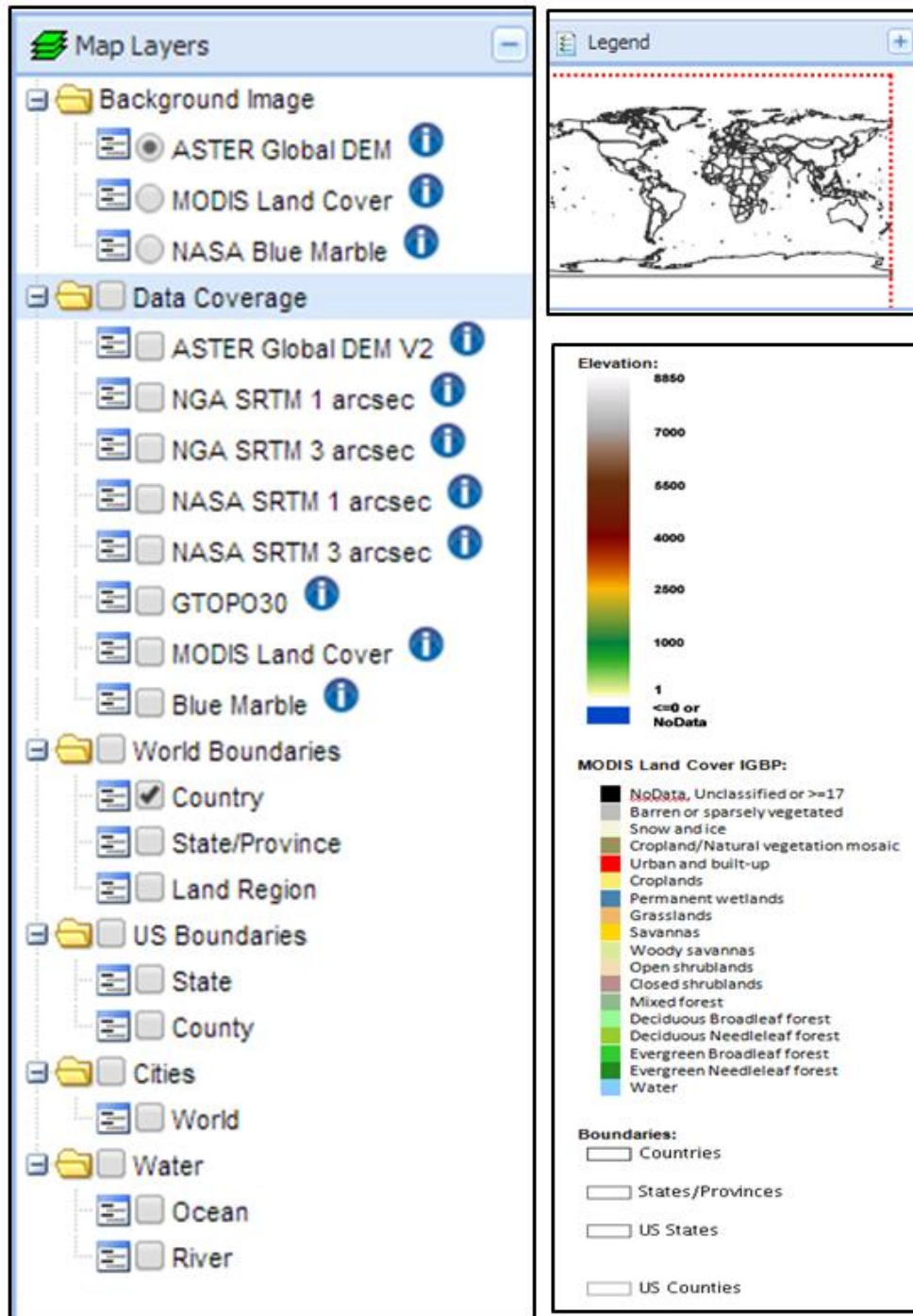
Figure 4 displays the tool bar. The icons from left to right perform the following actions: Zoom in – Zoom out, Pan, Drag box Zoom in, Zoom to Full Map, Refresh, Previous View, Next view, Define Area by Country or District/State or Province, Define Area By US State/Country, Define Area By Entering X and Y, Define Polygon Area, Define Rectangle Area, Clear Defined Area,

Download Data for Defined Area (Requires Log in), Latitude/Longitude of mouse location on map, Log in/Log out, and Help. Mouse-over these icons to view a brief text reference.



Figure 4 – Tool Bar Menu

Figure 5 below shows the **Map Layers**, **Data Coverage IGBP**, and **Legend** as they appear in the GDE interface. **Clicking the 'i' in the map layers provides additional details about the product listed in the map layer.** Clicking the radio button or adding a check mark next to the Background Image or Data Coverage within the map layers will show the selected data coverage for the map only, not the type of data product for download. Note: Selection of the product to download occurs in the 'Output Settings' dialog (see figure 9 Output settings).



Data Coverage addition: [NASA SRTM Combined 1 arcsec](#)

Figure 5 – Map Layers – Data Coverage - Legend

Access data in 4-steps:

Step 1 – Define Area of Interest

Figure 6 below you will be able to define the area of interest by specifying a location using one of the five icons located on the menu bar.

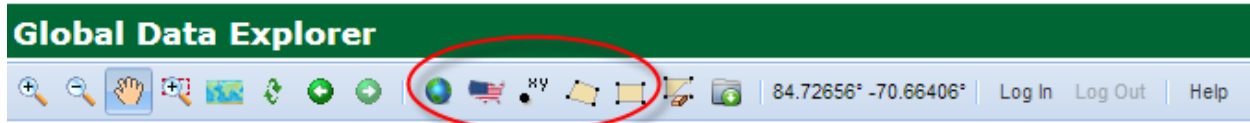



Figure 6 – Step 1 Define Area of Interest

If you chose one of the first three icons that 'Define Area by' Country or District/State or Providence, State/Country, or Entering Coordinates ([Convert to and from decimal degrees and degrees minutes seconds](#)), you will need to click the 'Submit' button to continue. You can use the Drag box Zoom In button, Define Area by Polygon, or Rectangle for the area of interest to

draw on the map. Then click on the folder icon with the arrow pointed downward  to continue to Step 2. The Global Data Explorer has several products available for download, all of which have different file sizes. Each product has its own limitation for how many tiles are able to be mosaicked in a single request. The table below shows each product available and the number of tiles that can be mosaicked. All tiles are 1x1 degree.

Products	Tile mosaic limit
ASTERGDEM	20
NGA SRTM 1 arcsec	36
NGA SRTM 3 arsec	50
NASA SRTM 1 arcsec	36
NASA SRTM 3 arsec	50
GTOPO30	300
MODIS Land Cover	300
NASA Blue Marble	300

Figure 7 – Product and Mosaic Limitations

When you select an area of interest on GDEx, you will receive a pop up box notification when the size exceeds the limit for the selected product. If this occurs, simply close the dialog box, and select a smaller area. In some cases it may be easiest to break up a larger area in to smaller blocks by defining the area with a Lat/Long range. Your area of interest will be processed and shown on the next screen.

If you are satisfied with the selection, continue to Step 2. This next screen will prompt you to log in with a URS registration account.

Step 2 – Log in with NASA EOSDIS User Registration System (URS) account

Figure 8 shows an area of interest and log in window for the GDEX interface. GDEX uses the NASA EOSDIS User Registration System (URS) single sign-on for Earthdata systems. The Log In button is located in the GDEX tool bar; Users must log in to enable download options. You can create an account by clicking on the hyperlink provided, or choose 'Forgot password or Username' whichever option best suits your needs.



Figure 8 – Step 2 Log in to GDEX

Step 3 – Specify Output Settings, Data Preview and Metadata tabs

Click on the download icon, and the 'Download – Output Setting' dialog box, Figure 9, displays. The content in this pop-up box changes as the data Product selected from the drop-down list is modified. Some data products, e.g., ASTER Global DEM V2, offer a README file and/or .num/QA files when the "GeoTIFF - 1x1 Tiles" option is selected. Choosing the GeoTIFF – 1x1 Tiles format, there will be no data preview or metadata provided for tile downloads. Also, when the ASTER Global DEM V2 product is selected for download, users are required to select a research area from the available listing that is most applicable in addition to indicating agreement with the product's redistribution policies.

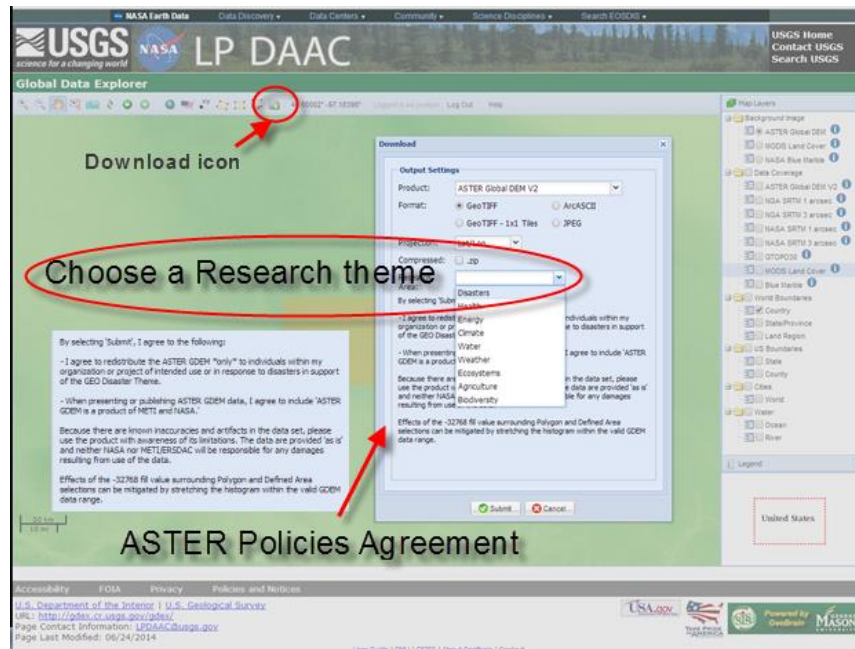


Figure 9 - Step 3 Output Settings

Once you click 'Submit, please wait while your request is being processed. When your area of interest has completed processing, you will be able to preview the selected image, as displayed in Figure 10, and a subset of the metadata.

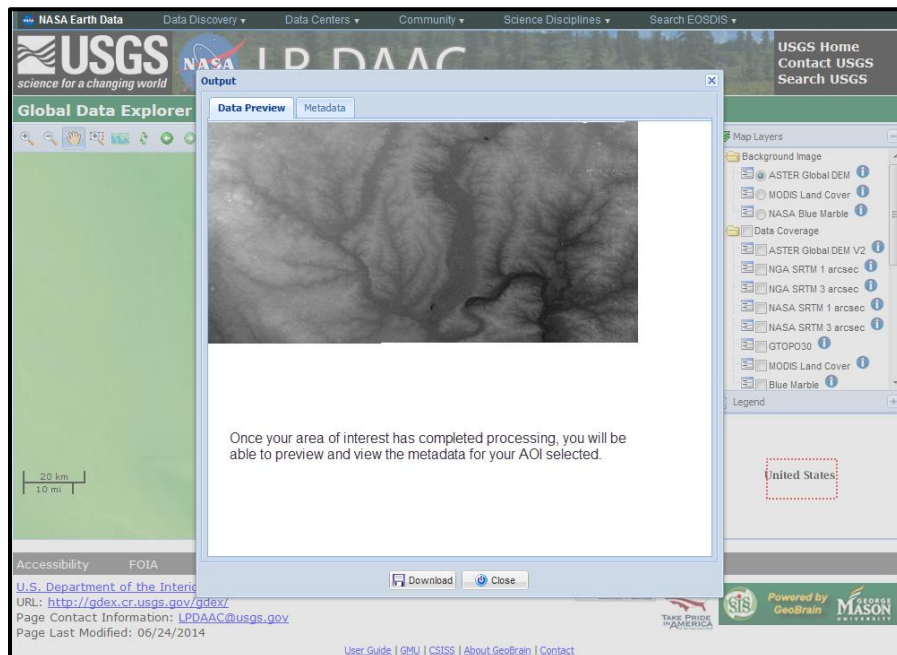


Figure 10 – Step 3 Data Preview and Metadata tabs

Step 4 – Download and Save File

If you are satisfied with the data preview, click the ‘Download’ button, as displayed in Figure 11.

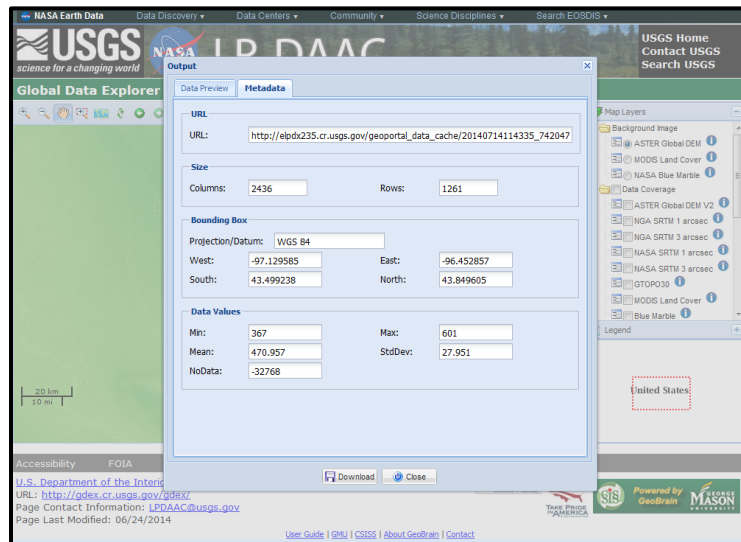


Figure 11 – Step 4 Download

Depending on the browser or the personal download settings on your computer, you may see the dialog box displayed in Figure 12 that provides an option to open or save the file. In this case, we recommend selecting ‘Save File’ to the desired directory on your computer. Once the download has completed you can continue to choose another data product or area of interest, simply restart the steps again.

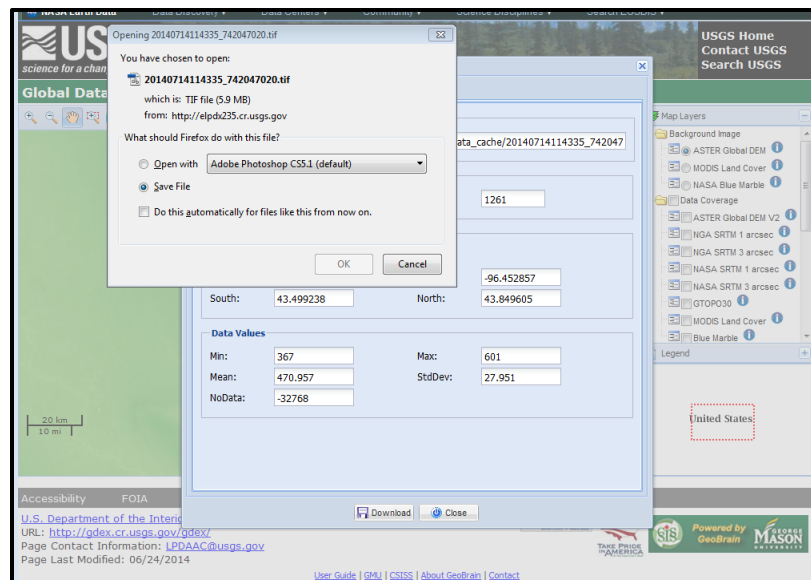


Figure 12 – Step 4 Save File

User Guide updates... new features:

- The 'Help' window links to System Status page, FAQ, and a New User Guide (instead of video). This will help to eliminate out dated resources.
- A System Status page located on the 'Help' window will have a system **Alert** page that provides timely information about current GDEx availability.
- GDEx most frequently asked questions: Additional GDEx FAQs will be added as needed.
- An ability to reference a quick User Guide for easy steps to download data. The User Guide link is also indicated at the bottom of the GDEx tool page.
- MODIS Land Cover 500m IGBP Land Cover Type legend and product.
- NASA Blue Marble - When that value is chosen, a January – December "Month" dropdown appears below the Blue Marble "Product" in the output settings.

References

ASTER Data Policies

https://lpdaac.usgs.gov/dataset_discovery/aster/aster_policies

GDEM

https://lpdaac.usgs.gov/dataset_discovery/aster/aster_products_table/astgtm

MODIS Land Cover Type Yearly L3 500 m SIN Grid

https://lpdaac.usgs.gov/dataset_discovery/modis/modis_products_table/mcd12q1

NASA Blue Marble

<http://earthobservatory.nasa.gov/Features/BlueMarble/>

NGA SRTM

<https://lta.cr.usgs.gov/SRTM2>

NASA SRTM

https://lpdaac.usgs.gov/dataset_discovery/measures/measures_products_table/srtmg11

https://lpdaac.usgs.gov/dataset_discovery/measures/measures_products_table/srtmg13

https://lpdaac.usgs.gov/dataset_discovery/measures/measures_products_table/srtmimgm

<https://lpdaac.usgs.gov/sites/default/files/public/measures/docs/SRTM%20Quick%20Guide.pdf>

GTOPO 30

<https://lta.cr.usgs.gov/GTOPO30>

LP DAAC FAQs

<https://lpdaac.usgs.gov/faq-page>

Convert to and from decimal degrees and degrees minutes seconds.

<http://transition.fcc.gov/mb/audio/bickel/DDMMSS-decimal.html>

Citing Our Data https://lpdaac.usgs.gov/citing_our_data